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Signed P. Mahoney

Dated 28 May 2004

P nts Form 1/77

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D Y & CO

09JUL98 E374023-15 D02246
P01/7700 25.00 - 9814723.4

Request for a grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

The Patent Office

Cardiff Road
Newport
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1. Your reference — P/4465.GB C.309

2. Patent application number
(The Patent Office will fill in this part) — 07 JUL 1998 — **9814723.4**

3. Full name, address and postcode of the or of each applicant
(underline all surnames)

BRISTOL-MYERS SQUIBB COMPANY
100 HEADQUARTERS DRIVE
SKILLMAN
NEW JERSEY 08558
USA

Patents ADP number *(if you know it)*

If the applicant is a corporate body, give the country/state of its incorporation — USA — 4448820003

4. Title of the invention — IMPROVEMENTS RELATING TO OSTOMY AND INCONTINENCE APPLIANCES

5. Name of your agent *(if you have one)* — D YOUNG & CO

"Address for service" in the United Kingdom to which all correspondence should be sent
(including the postcode)

21 NEW FETTER LANE
LONDON
EC4A 1DA

Patents ADP number *(if you have one)* — 59006

6. If you are declaring priority from one or more earlier patent applications, give the country and date of filing of the or each of these earlier applications and (if you know it) the or each application number

Country	Priority application number *(if you know it)*	Date of filing *(day/month/year)*

7. If this application is divided or otherwise derived from an earlier UK application, give the number and filing date of the earlier application

Number of earlier application	Date of filing *(day/month/year)*

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? *(Answer 'Yes' if:*
a) any applicant named in part 3 is not an inventor, or
b) there is an inventor who is not named as an applicant, or
c) any named applicant is a corporate body.
See note (d))

YES

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9. **Enter the number of sheets for any of the following items you are filing with this form. Do not count copies of the same document**

Continuation sheets of this form	NO
Description	5
Claims(s)	
Abstract	+1 - 100
Drawing(s)	1

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10. **If you are also filing any of the following, state how many against each item.**

Priority documents	
Translations of priority documents	
Statement of inventorship and right to grant of a patent *(Patents Form 7/77)*	
Request for preliminary examination and search *(Patents Form 9/77)*	
Request for substantive examination *(Patents Form 10/77)*	
Any other documents *(please specify)*	

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11. **I/We request the grant of a patent on the basis of this application.**

Signature — **Date**

D. Young & Co.
D YOUNG & CO
Agents for the Applicants

7 JULY 1998

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12. **Name and daytime telephone number of the person to contact in the United Kingdom**

Miles K. Holmes — 0171 353 4343

Warning

After an application for a patent has been filed, the Comptroller of the Patent Office will consider whether publication or communication of the invention should be prohibited or restricted under Section 22 of the Patents Act 1977. You will be informed if it is necessary to prohibit or restrict your invention in this way. Furthermore, if you live in the United Kingdom, Section 23 of the Patents Act 1977 stops you from applying for a patent abroad without first getting written permission from the Patent Office unless an application has been filed at least 6 weeks beforehand in the United Kingdom for a patent for the same invention and either no direction prohibiting publication or communication has been given, or any such direction has been revoked.

Notes

a) If you need help to fill in this form or you have any questions, please contact the Patent Office on 0645 500505

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d) If you answered 'Yes' Patents Form 7/77 will need to be filed.

e) Once you have filled in the form you must remember to sign and date it.

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Improvements relating to ostomy and incontinence appliances

The present invention relates to improvements relating to ostomy and incontinence appliances, in particular to the use of a malodour counteractant (referred to herein as an MCA).

When body effluent is collected in an ostomy pouch, unpleasant odours exist to which the human nose is highly sensitive. It is desirable (1) to avoid such malodours from escaping from the pouch while the pouch is being worn, and (2) to avoid a highly unpleasant smell emulating from the bag when it is removed for emptying, or disposal.

Broadly speaking, in one aspect, the present invention provides a carrier carrying a layer of MCA material. The term MCA is used broadly herein to encompass any form of malodour counteractant, and includes odour absorbers, odours maskers (e.g. fragrances), and substances which react with odorous chemicals to produce non-odorous (or substantially less-odorous) products. The carrier might, for example, itself not contain any MCA material.

In one form, the MCA may comprise granules which are adhered to the carrier, for example, by adhesive. The granules might be in the form of a monolayer (in the same way as a monolayer of sand attached to a backing to form sandpaper).

The adhesive for securing the granules may, for example, be non-responsive to water, or it may be water washable (i.e. allows separation in the presence of water), or more preferably water soluble, so that the adhesive dissolves almost completely. The purpose of the adhesive is to lock the granules to the carrier under normal ambient conditions (e.g. in the presence of ambient water vapour), but to allow the granules to be released when contacted by liquid associated with waste body matter.

The MCA could also be applied to the carrier as a uniform film or coating. For example, techniques to produce the coating may include hot melt coating; powder

coating followed by compression; powder coating on to a pressure sensitive adhesive; solvent coating; and printing.

The coating might comprise a matrix and one or more MCA additives. Preferred matrixes are illustrated by:

- glycerol and polyethylene glycol;
- surfactant (e.g. sodium lauryl sulphate);
- soap (e.g. sodium stearate or potassium laurate).

In all cases, the carrier might comprise any of the following;

(a) a paper tissue,
(b) a plastic film (for example, polyvinyl alcohol or polyethylene);
(c) a non-woven fabric; or
(d) an absorbent pad.

Such an absorbent pad may, for example, be a composite comprising any of the following:

(i) tissue paper/sodium polyacrylate, glycerol, water/tissue paper;
(ii) tissue paper/viscose and super-absorbent fibres/tissue paper;
(iii) tissue paper/viscose and super-absorbent fibres;
(iv) polyvinyl alcohol fibres and super-absorbent fibres.

In the above the "/" represents separate layers of the composite.

The super-absorbent fibres may be those produced under the trade name "Oasis".

In all cases, the MCA material, components or additives may, for example, consist of one or more of the following:

- one or more chlorine dioxide generators (e.g. sodium chlorite);
- one or more iodine generators;
- one or more hydrogen peroxide generators;
- benzyl alkonium chloride;
- sodium nitrite and/or sodium benzoate.

Broadly speaking, a second aspect of the invention provides a method for use in pouch production, the method comprising attaching directly or indirectly to plastics material forming, or for forming, a pouch wall, a carrier carrying an MCA. For example, the carrier may be attached using an opposite surface to that carrying the MCA.

In another aspect, the invention provides a method of manufacturing an ostomy or incontinence pouch, the method comprising the above method steps.

In a further aspect, the invention provides an ostomy or incontinence pouch including a carrier as defined above (and carrying MCA material). Preferably the carrier is attached directly or indirectly to the interior of the pouch.

Embodiments of the invention are now described by way of example only, with reference to the encompanying drawings, in which:

Fig. 1 is a schematic section through a first MCA and carrier;
Fig. 2 is a schematic section illustrating a second MCA and carrier; and
Fig. 3 is a schematic view illustrating a third MCA and carrier.

Referring to Fig. 1, a first article 10 consists of a carrier film 12 having on a first face a layer of adhesive 14 and a monolayer of particles of powdered MCA 16 (for example, sodium chlorite granules). The other face of the carrier is attached to the interior face of a plastics wall 18 of an ostomy pouch, by means of a second layer of

adhesive 20. In order to prevent direct contact between the MCA powder, and a patient's stoma, a liquid permeable cover is secured over the article 10. The cover can be secured to the plastics wall 18 by welding, or by adhesive.

The layers 14 and 20 may be of the same adhesive, or they may be of different adhesives. The adhesives may be pressure sensitive. Preferably, at least the layer 14 is water washable, or water soluble.

The film 12 and the adhesive layers 14 and 20 may be formed as a double-sided adhesive tape.

Referring to Fig. 2, a second article 30 consists of a carrier 32 to which is applied a coating 34 consisting of a matrix and one or more MCA additives. The carrier 32 is secured at one end to the interior face of a plastics pouch wall 36, for example, by adhesive or by welding.

In the above examples, the carrier is passive (in other words, it has no purpose except to carry the MCA). Referring to Fig. 3, in other embodiments, the carrier may consist of a pad, for example, an absorbent pad. Alternatively, the carrier may be passive, but may be secured to another article, for example, an absorbent pad, which is itself attached to the interior face of the pouch wall.

In Fig. 3, the pad 40 consists of a wad containing super-absorbent material, and a surface layer of MCA 44 (either carrier directly on the wad, or on a carrier bonded to the wad). In one form, the MCA layer may be apertured to allow moisture direct access to the super-absorbent containing wad. The pad 40 would be adhered to the wall of a plastics pouch by its undersurface 46 as seen in Fig. 3. The pad 40 could be bonded to the wall along the pad length, or at one or more discrete positions, for example, at one or both ends of the pad.

If the pad is attached to wall at only one end (in the same way as illustrated in Fig. 2), then the pad may be able to float relative to the wall, thus allowing liquid to be absorbed through the undersurface 46 of the pad (as seen in Fig. 3). This may, in some cases, avoid the need to have to aperture the MCA 44 on the front surface.

With the designs described hereinbefore, the MCA can remain stable, with very little or no deterioration occurring before the pouch is used. The above techniques also permit the article to be secured within a pouch during manufacture of the pouch, to prevent the MCA from moving around undesirably during pouch manufacture. There is also very little (if any) hazard to manufacturing staff who have to handle the product and the pouches during manufacture.

It will be appreciated that the foregoing description is merely illustrative of preferred forms of the invention, and that many modifications may be made within the principles of the invention. The applicant claims protection for any novel feature described herein and/or illustrated in the drawings, whether or not emphasis has been placed thereon.

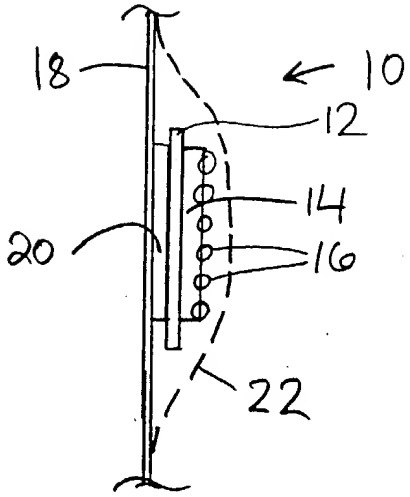

Fig. 1

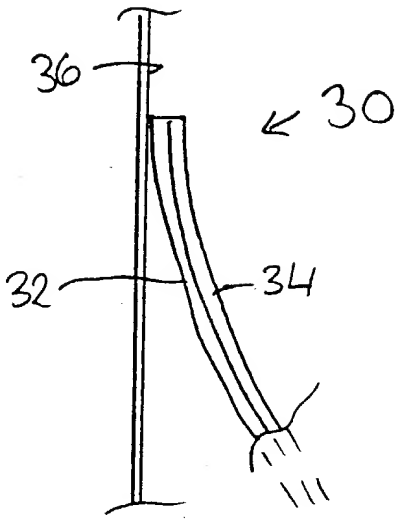

Fig. 2

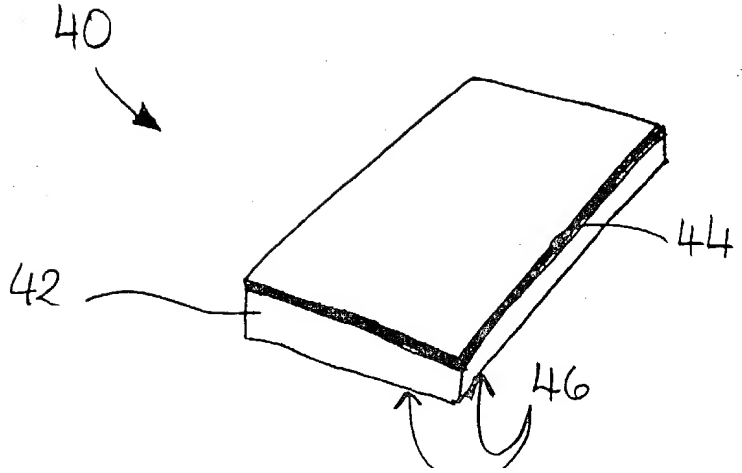

Fig. 3